

### Context

- Biodiversity conservation is a complex, cross-sectoral issue, involving multiple scales and drivers.
- Conservation strategies are associated with multiple knowledge systems and values, in a context of uncertainty
- Challenge: to link science and non-science knowledge- and value base with policy responses
- → WP 3 focuses, broadly speaking, on the delicate issue of knowledge integration in MBI design and implementation, especially from the science-policy interface (SPI) perspective
- → Supported by WP2 or new case-studies

# WP 3.1: Economic approaches to conservation from SPI perspective (Freiburg Univ.)

- Econ. valuations (EV°) claimed to help transferring scientific results into practical politics (Ring et al2010)
- However, EV° may have negative implications from the SPI point of view :
  - limitations in language and underlying values and ideologies
  - narrow perspective to describe complex socio-ecological systems (Norgaard, 2010)
  - incapacity to respond adequately to uncertainty issues

# WP 3.1: Economic approaches to conservation from SPI perspective (Freiburg Univ.)

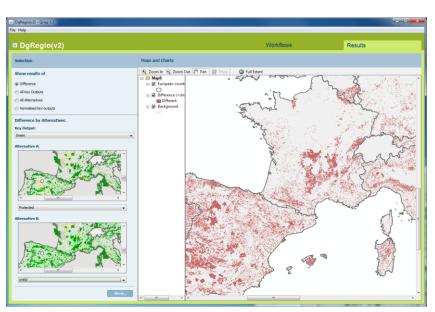
### $\rightarrow$ :

- MBI should be based on a broader K- and V base integrating not only economic valuations of ES, but also:
  - biophysical ecosystem assessments
  - multiple sets of languages, K and V systems
- Strong need for knowledge integration, i.e. pluralistic approach to conservation that:
  - Bring together hard sciences and alternative K systems
  - Acknowledge the diversity of V systems involved in biodiversity and ecosystem management
  - Connect and integrate knowledge at and across relevant scales
  - Acknowledge and account for uncertainty

## WP 3.2: Decision-support systems (DSS) as tools to enhance K integration (Wageningen Univ.)

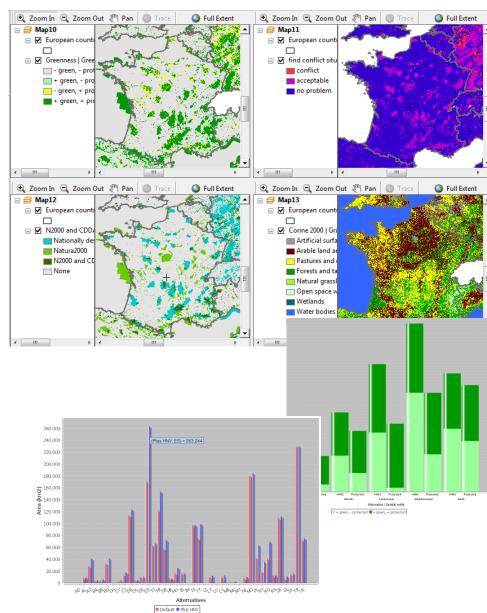
- Litterature focuses on benefits of participatory decisionmaking processes, much less on the implications of DSS on such processes
- 'Quickscan' tool provides for a spatially-explicit information system to support decision-making, including in participatory processes

# WP 3.2: Decision-support systems (DSS) as tools to enhance K integration (Wageningen Univ.)



#### **QuickScan Tool**

- 1. Difference map (linked views)
- Multiple maps (linked views)
- Area of qualitative categories in stacked charts
- 4. Quantities in bar charts



# WP 3.2: Decision-support systems (DSS) as tools to enhance K integration (Wageningen Univ.)

### WP3.2 suggests that:

- DSS are developed with little/no stakeholder involvement which hinders usefulness, relevance, legitimacy and up-take by policy-makers
- QuickScan gives good opportunities for knowledge integration and development of shared understanding for the appraisal of alternative policy options in the field of biodiversity conservation

#### Possible limitations due to :

- Lack of accurate datas
- Illusion of certainty entailed by mapping possible impact of policy alternatives

# WP 3.3: Legal aspects of K integration into MBI design and implementation (Louvain Univ.)

- WP 3.3.: how law may enhance K integration into MBI design and implementation?
- First results suggest that law may play a crucial role in public PES and biodiversity offsets schemes through:
  - definition of clear conservation objectives and obligations
  - use of planning instruments to frame PES and offset mechanisms
  - creation of SPI institutions at the local level
  - creation of SEA procedures and sustainability assessments

 Economic valuations are not often required in legal PES/biodiv offsets frameworks; however, cost analysis of biodiversity restoration and banking are entailed by MBI legislation

### Thank you for your attention!

